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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Rainer H. Wischinski

Application No. 09/635,280

Confirmation No. 4936

Filed: August 9, 2000

For: METHOD AND APPARATUS FOR  
PROGRAMMING AN AUTOMATION DEVICE

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) Examiner: David R. Lazaro  
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) Art Unit: 2155  
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**TRANSMITTAL OF APPEAL BRIEF**

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Commissioner:

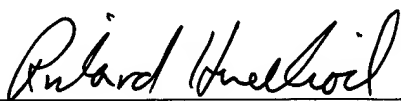
Transmitted herewith is Appellant's Appeal Brief in this application, with respect to the Notice of Appeal mailed on February 21, 2006. Under 37 C.F.R. 41.37, this Brief is due on April 28, 2006 following the reset of the one month time period from the mailing of the Decision from Pre-Appeal Brief review. This brief is therefore timely filed.

Pursuant to 37 C.F.R. 1.17(f), the fee for filing the Appeal Brief (large entity) is \$500. A check in the amount of \$500 for filing of the Appeal Brief is attached.

The Commissioner is hereby authorized to debit any payment deficiencies in this matter or credit any overpayment to Deposit Account No. 23-0280. A duplicate copy of this sheet is attached.

Respectfully submitted,

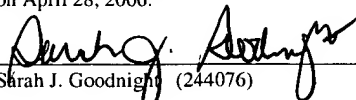
Date: April 28, 2006

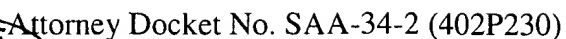
By:   
Richard C. Himelhoch, Reg. No. 35,544  
Customer No. 46901  
Wallenstein Wagner & Rockey, Ltd.  
311 South Wacker Drive, 53<sup>rd</sup> Floor  
Chicago, Illinois 60606-6630  
312-554-3300  
Attorneys for Appellant

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I hereby certify that this correspondence and fees are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on April 28, 2006.

  
Sarah J. Goodnight (244076)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RAINER H. WISCHINSKI

Application No. 09/635,280

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For: METHOD AND APPARTUS FOR  
PROGRAMMING AN AUTOMATION  
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**APPELLANT'S APPEAL BRIEF**

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Commissioner:

Appellant submits this Appeal Brief, in furtherance of the Notice of Appeal, mailed in accordance with 37 C.F.R. §1.8(a) on February 21, 2006. Under 37 C.F.R. 41.37, this Brief is due on April 28, 2006 following the reset of the one month time period from the mailing of the Decision from Pre-Appeal Brief review. This brief is therefore timely filed.

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**I. REAL PARTY IN INTEREST**

The real party in interest is Schneider Automation Inc., to whom all right, title and interest to this patent application have been assigned by the inventor (hereinafter referred to as "Appellant").

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

**III. STATUS OF CLAIMS**

Twenty-three (23) claims have been filed in the application. As of the Notice of Appeal, claims 1-17, 19-21, and 23 were pending. Accordingly, claims 1-17, 19-21, and 23 are pending for appeal. A detailed status of the claims is as follows:

- A. Claims originally filed: 1-23
- B. Claims canceled: 18 and 22
- C. Claims added: None
- D. Claims currently pending: 1-17, 19-21, and 23
- E. Claims allowed: None
- F. Claims rejected: 1-17, 19-21, and 23
- G. Claims objected to: None
- H. Claims on appeal: 1-17, 19-21 and 23

Each of the claims involved in this Appeal (1-17, 19-21 and 23) are included in the attached Claims Appendix.

**IV. STATUS OF AMENDMENTS**

No Amendments were filed subsequent to the final rejection in the Office Action of October 20, 2005.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The present invention is directed to a control system and a method of operating a control system for programming an automation device. The control system includes an automation device connected to a network. Also connected to the control system is a network device that

stores a plurality of customized application programs. In operation, the automation device transmits a request message to the network device for a specific customized application program of the plurality of customized application programs. The specific customized application program is selected by the network device in response to the message request and is transmitted to the automation device. Following transfer, the requested customized application program is installed and executed in the automation device.

**A. Claim 1**

Claim 1 is directed to a control system that comprises an automation device and a network device connected to a network. As generally illustrated with respect to a preferred embodiment, the control system includes an automation device 10 operably connected to a network 12. (Application p. 3, line 23 - p. 7, line 19; Figures 1-4). The automation device 10, preferably a programmable logic controller (PLC), can be operably connected to other PLCs 10 or input/output devices 16. (Application p. 4, lines 7-9). Other network devices 14, i.e., network personal computer, computer, input/output (IO) module 16, printer, etc., can also be operably connected to the network 12. (Application p. 4, lines 12-14).

The control system of claim 1 further comprises the network device storing a plurality of customized application programs. One of these customized application programs is specifically for controlling the automation device of claim 1. Again, as described and shown, the network device 14, preferably a server, stores one or more predetermined application programs 20 for use with the automation device 10. (Application p. 4, lines 14-15). The application program 20 comprises an executive code and a user code for the PLC, along with a boot up code. (Application p. 4, lines 20-21). In addition, depending on the application program 20 required by the automation device 10, the network device 14 can provide the automation device 10 with an application program code that is specifically directed to the desired functionality. (Application p. 4, lines 24-27).

Finally, the control system of claim 1 specifically requires the customized application program to be selected by the network device in response to a specific application program request message from the automation device for this specific customized application program. Accordingly, the automation device determines which of the plurality of application programs

stored in the network device is to be downloaded to the automation device. As described, the application program 20 is selected in response to a message sent by the automation device 10 requesting the application program. (Application p. 6, lines 4-6). The selected application program 20 is then transmitted from the network device 14 to the PLC 10 in response to the message request for the application program. (Application p. 6, lines 4-6). The application program 20 is then installed and executed on the PLC 10. (Application p. 6, lines 6-7). Storing an array of application programs 20 within the network device 14 eliminates the need for the automation device 10 to store its own application programs. (Application p. 4, lines 14-19).

**B. Claim 12**

Claim 12 is directed to a method of operating a control system on a network. As an initial step, the method of claim 12 requires providing a network device storing application programs to be executed on an automation device. As illustrated, a network device 14, preferably a server, stores one or more predetermined application programs 20 for use with the automation device 10. (Application p. 4, lines 14-15).

The method of claim 12 further requires transmitting a message for requesting a network address for the automation device by the automation device. The automation device 10, preferably a programmable logic controller (PLC), can be operably connected to other PLCs 10 or input/output (IO) devices 16. (Application p. 4, lines 6-9). The PLC 10 sends out a BOOTP or DHCP request for obtaining an address on the network 12. (Application p. 6, lines 1-2).

Claim 12 also requires transmitting a message requesting a customized application program. In this step, the automation device determines which of the plurality of application programs stored in the network device is downloaded to the automation device. As described, the application program 20 is selected in response to a message sent by the automation device 10 requesting the application program. (Application p. 6, lines 4-6). Depending on the application program 20 required by the automation device 10, the network device 14 can provide the automation device 10 with an application program code that is specifically directed to the desired functionality. (Application p. 4, lines 24-27).

Following the selection, according to claim 12, the selected application program 20 is then transmitted from the network device 14 to the PLC 10 in response to the message request



for the application program. (Application p. 6, lines 4-6). The application program 20 is then installed and executed on the PLC 10. (Application p. 6, lines 4-7).

**C. Claim 17**

Claim 17 is directed to a network control system. Claim 17 requires means for operably connecting a network device to the network control system. As described in the Application, a control system shown in FIGURE 1 includes an automation device 10 operably connected to a network 12. The automation device 10, preferably a programmable logic controller (PLC), can be operably connected to other PLCs 10 or input/output (IO) devices 16. (Application p. 4, line 6-9). An application program 20 for controlling an automation device 10 is stored on a network device 14 operably connected to the network 12.

Claim 17 further requires means for transmitting a message requesting a network address by the automation device. The PLC 10, in the present invention, sends out a BOOTP or DHCP request for obtaining an address on the network 12. (Application p. 6, lines 1-2).

The system of claim 17 also requires means for transmitting a message by the automation device requesting one customized application program of the plurality of customized application programs as part of a bootstrap protocol. As described, a message request from the PLC 10 is transmitted to the network device 14, preferably a server, for acquiring the application program 20. (Application Pg. 5, line 27- p. 6, line 4). The server 14 includes a network interface 22 having a unique network address 24 and an application program 20. (Application p. 6, lines 11-12). The server 14 acts as a hypertext transfer protocol (HTTP) interpreter, which uses a network protocol, i.e., Transmission Control Protocol (TCP) in conjunction with a Internet Protocol, through a Transmission Control Protocol/Internet Protocol (TCP/IP) stack to interact with the network interface 22 and the application program 20. (Application p. 6, lines 12-16). This enables the transfer of the application program 20 to the PLC 10 through the network 12. (Application p. 6, lines 16-18).

The system of claim 17 further requires means for selecting the one customized application program in response to the request message requesting the one customized application program. An application program 20 comprises an executive code and a user code for the PLC 10, along with a boot up code. (Application p. 4, lines 20-21). The application

program 20 can be stored, created and edited using the network device 14 without requiring the resources of the PLC 10. (Application p. 4, lines 21-23). Thus, depending on the application program 20 required by the automation device 10, the network device 14 can provide the automation device 10 with an application program code that is specifically directed to the desired functionality. (Application p. 4, lines 24-27). Further customization of the application program 20 includes tailoring the executive program of the application program to meet the minimum criteria to effectively execute the application program 20. (Application p. 5, lines 3-5). Subject to the message request sent by the PLC 10 requesting the application program, unutilized sections of the code can be eliminated and parsed out from the generic application program prior to transmitting the selected application program to the PLC. (Application p. 5, lines 6-9).

Additionally, claim 17 requires means for transmitting the one customized application program to the automation device. The applicable application program 20 is selected and transmitted from the network device 14 to the PLC 10. (Application p. 6, lines 4-6). Figures 2-5 show block diagrams of the present invention illustrating the relationship between an automation device 10 and a network device 14, i.e., server, for storing an application program 20 to be executed on the automation device 10. (Application p. 6, lines 8-11). The server 14 includes a network interface 22 having a unique network address 24 and an application program 20. (Application p. 6, lines 11-12). The server 14 acts as a hypertext transfer protocol (HTTP) interpreter which uses a network protocol, i.e., Transmission Control Protocol (TCP) in conjunction with a Internet Protocol, through a Transmission Control Protocol/Internet Protocol (TCP/IP) stack to interact with the network interface 22 and the application program 20. (Application p. 6, lines 12-16). This enables the transfer of the application program 20 to the PLC 10 through the network 12. (Application p. 6, lines 16-18).

Finally, claim 17 means for installing the one customized application program at a boot time of the automation device. An application program 20 comprises an executive code and a user code for the PLC 10, along with a boot up code. (Application p. 4, lines 20-21). The applicable application program 20 is selected and transmitted from the network device 14 to the PLC 10 in response to the message request for the application program. (Application p. 6, lines

4-6). The application program 20 is installed and executed on the PLC 10. (Application p. 6, lines 6- 7).

**D. Claim 21**

Claim 21 is directed to a method of operating a control system on a computer network. Claim 21 specifically requires providing a network device for storing a plurality of application programs. Accordingly, a network device 14, preferably a server, stores one or more predetermined application programs 20 for use with the automation device 10. (Application p. 4, lines 14-15).

Claim 21 also requires the automation device to request a network address. As described and shown in the figures, the PLC 10 sends out a BOOTP or DHCP request for obtaining an address on the network 12. (Application p. 6, lines 1-2).

Claim 21 further requires requesting a customized application program. As is shown, an application program 20 is selected in response to a message sent by the automation device 10 requesting the application program. (Application p. 4, lines 16-17).

Additionally, claim 21 requires the selection of a customized application program. The applicable application program 20 is selected and transmitted from the network device 14 to the PLC 10 in response to the message request for the application program. (Application p. 6, lines 4-6). Thus, depending on the application program 20 required by the automation device 10, the network device 14 can provide the automation device 10 with an application program code that is specifically directed to the desired functionality. The request is generated by the PLC 10 incorporating a dynamic host configuration (DHCP) or bootstrap (BOOTP) protocol. (Application p. 4, line 24- p. 5, line 2).

Finally, claim 21 requires that the program is transmitted to the automation device and is then installed on the automation device. Accordingly, the applicable application program 20 is selected and transmitted from the network device 14 to the PLC 10 in response to the message request for the application program. (Application p. 6, lines 4-6). The application program 20 is then installed and executed on the PLC 10. (Application p. 6, lines 6-7).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The following grounds of rejection should be reviewed on appeal:

1. Whether claims 1, 2, 4-9, 11-13, 15, 17, 19-21 and 23 were properly rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon (U.S. Patent No. 5,909,368) in view of Nookala (U.S. Patent No. 5,878,257).
2. Whether dependent claims 3, 14 and 16 were properly rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon in view of Nookala and further in view of Ditze ("A Customizable Library to support Software Syntheses for Embedded Applications and Micro-Kernel Systems" by Ditze).
3. Whether dependent claim 10 was properly rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon in view of Nookala and further in view of Johnson (U.S. Patent No. 6,788,980).

## **VII. ARGUMENTS**

### **A. Nixon in view of Nookala Does Not Render Claims 1, 2, 4-9, 11-13, 15, 17, 19-21 and 23 Obvious**

Claims 1, 2, 4-9, 11-13, 15, 17, 19-21 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,909,368 by Nixon et al. ("Nixon") in view of U.S. Patent 5,878,257 by Nookala et al. ("Nookala"). Appellant respectfully submits the Examiner erred in maintaining this Section 103 rejection and respectfully requests reversal of this rejection.

To establish a prima facie case of obviousness under 35 U.S.C. 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP 2143.01. Second, there must be a reasonable expectation of success. See MPEP 2143.02. Finally, the prior art reference(s) must teach or suggest all of the claim limitations. See MPEP 2143.03. The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. See MPEP §2142; *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Notwithstanding this burden, the Examiner in

the present case failed to set forth a prima facie showing of obviousness, and instead, improperly relied on hindsight reconstruction in rejecting the claims.

**1. Claims 1, 2, 4-9, 11-13, 15, 17, 19-21 And 23**

Appellant argues the patentability of claims 1, 2, 4-9, 11-13, 15, 17, 19-21 and 23 as a single group. As generally described above, the presently claimed invention is directed to a control system and a method of operating a control system having an automation device and a network device connected by a network. The network device stores a plurality of customized application programs that can be used to control the automation device. As exemplified in claim 1, “one customized application program of the plurality of customized application programs controls the automation device, and is selected by the network device in response to a specific application program request message for the one customized application program received at the network device and sent from the automation device ....” (Underlining added, claim 1). Accordingly, the automation device determines which of the plurality of application programs stored in the network device is downloaded to the automation device. Independent claims 12, 17 and 21 have similar limitations.

The system of Nixon does not disclose a control system in accordance with the present invention. Instead, a user in Nixon requests a control routine through a workstation coupled to a controller. (Nixon, column 9, lines 6-9). The system disclosed in Nixon includes field devices, controllers coupled to the field devices and workstations coupled to the controllers. (See Nixon, column 4, line 60 – column 5, line 2). The workstations include a user interface for “providing display screens for enabling the user to select methods or programs that perform the new or modified function for the particular control template.” (See Nixon, column 10, lines 13-32).

In contrast to the method of system of the present invention, in Nixon, “a user selects the program to be downloaded.” (See Office Action of May 3, 2005, page 12, lines 18-19, or, Nixon, column 7, lines 8-13, “Main PC2 is configured to generate, in response to user input commands, various control routines that are provided via the CAN 3 to one or more local controllers identified as elements 4 and 5 which implement the control strategy defined by the control routines selected and established in main PC 2”). That is, the application program of Nixon is not selected by the automation device’s application program request message.

Nookala is cited as disclosing a “computer system 200” where a program request message can be sent from a device requiring the programming. (Office Action of May 3, 2005). Specifically, the device includes “instruction codes” which “are also used to retrieve a program from a remote data source connected to the communications network.” (Nookala, column 2, line 66 – column 3, line 3). Nookala does not disclose how many applications are stored in the data source or whether the instruction codes provide for selection of one of a plurality of programs by the device.

**2. No Suggestion or Motivation to Combine**

The Examiner maintains it would have been obvious to modify the system disclosed in Nixon with features disclosed in Nookala. However, Appellant respectfully submits that the proposed combination of Nixon with Nookala is improper because there is no motivation or incentive in the prior art to combine them. See *In re Napier*, 55 F. 3d 610, 613, 34 U.S.P.Q.2d 1782, 1785 (Fed. Cir. 1995).

Although both references refer to computer network systems, the two systems have very different purposes and employ very different approaches to achieve their respective goals. These different purposes and goals do not support a finding of obviousness. Instead, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). Here, there is absolutely no incentive in either Nixon or Nookala to combine the references in the manner suggested by the Examiner. When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 U.S.P.Q.2d 1788 (Bd. Pat. App. & Inter. 1986).

Neglecting this duty, the Examiner failed to show the requisite suggestion or motivation to combine the cited references. In making the combination, the Examiner simply asserts:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Nixon and modify it as indicated by Nookala such that the system further comprises a specific application

program request message for the one customized application program received at the network device and sent from the automation device. One would be motivated to have this, as there is need for programming a programmable memory from a remote location (Column 2, lines 1-3 of Nookala). (Office Action of October 20, 2005, p. 4).

However, the Examiner's basis for combining the references fails to explain how the cited portion of Nookala would motivate one to modify Nixon to have a device request an application rather than having the user make this selection. Specifically, the Examiner fails to explain how the "need for programming a programmable memory from a remote location" motivates one to modify Nixon in any manner. Nixon already provides some form of programming a memory from a remote location by having a user – through a workstation – select which programs should be downloaded to the remote location. It is the Examiner's burden to show how this "need" motivates one skilled in the art to remove the user selection from Nixon and instead, substitute the device request feature from Nookala. The Examiner fails to make this showing.

Moreover, the disclosures in Nixon and Nookala would lead one skilled in the art away from the combination purposed by the Examiner. Specifically, Nixon is directed to an interactive system which requires user input for "building a plurality of function blocks and control modules" for downloading to a fieldbus device. (See e.g., Nixon, column 4, lines 45–67 and column 32, lines 23-30). In sharp contrast to the interactive system disclosed in Nixon, Nookala is directed to a system which does not require user interaction.

In view of the dissimilar approaches taken by each reference, one skilled in the art would not be motivated to modify Nixon by implementing features from Nookala. In fact, such a modification to Nixon is completely counter to its goal of having "a **user-developed** control strategy." (Nixon, column 4, lines 41-45). Consequently, the references are not properly combinable.

### **3. There Is No Reasonable Expectation Of Success**

In addition to the failings discussed above, modifying Nixon as proposed by the Examiner would render the system disclosed in Nixon unsatisfactory for its intended purpose.

That is, contrary to the Examiner's position of obviousness, the proposed modification of Nixon would completely alter the system disclosed therein.

As set forth, Nixon discloses a system where a user decides which function blocks or control modules are downloaded into a device. (Nixon, column 4, lines 45-49). There is no evidence that Nixon would successfully function for its intended purpose if modified so that the device itself requested the function blocks or control modules. In fact, the modification to Nixon proposed by the Examiner would circumvent Nixon's function of providing **user-defined control of the system**. (Nixon, column 4, lines 41-45).

It is well settled that where the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, the proposed modification would not have been obvious. *See Tec Air Inc. v. Denso Mfg Michigan Inc.*, 192 F.3d 1353, 1360, 52 U.S.P.Q.2d 1294, 1298 (Fed. Cir. 1999); *In Re Gordon*, 773 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). Because Nixon would not operate as intended if the user did not define the control strategy, combining Nookala with Nixon would not have been obvious.

#### **4. The Prior Art Fails To Disclose Each Claim Limitation**

The combination of Nixon and Nookala fails to disclose each limitation of the claimed invention. With respect to the primary reference, the Examiner acknowledges, "Nixon does not explicitly disclose the message being a specific application program request message for the one customized application program." (Detailed Action of October 20, 2005, p. 3).

Similarly, Nookala also fails to disclose a system which requests one customized application from a plurality of customized applications. (Response to Office Action of May 3, 2005, p. 7). Specifically, Nookala fails to disclose how many programs are maintained in the "data source," or whether the "computer system 200" is requesting a specific application from a plurality of applications as required by each of the independent claims of the present invention. (See e.g., Nookala, column 3, lines 43-46). Accordingly, even if it were proper to combine the references, the combination still does not disclose each of the limitations.

#### **5. The Examiner Improperly Used Hindsight Reconstruction**

It is apparent the Examiner took isolated features from the cited references, and has used the claims of the present application as a template. Such hindsight reconstruction is improper. It



is well recognized that the claimed invention cannot be used as an instruction manual or template to piece together the teachings of the prior art in an attempt to render the claimed device obvious. *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992); *Fine*, 837 F. 2d at 1075 (“one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.”)

**6. Conclusion**

Without the requisite motivation, reasonable expectation of success, and disclosure of each of the claimed limitations, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 2, 4-9, 11-13, 15, 17, 19-21 and 23. Accordingly, Appellant respectfully submits these claims are patentable over Nixon in view of Nookala.

**B. Nixon in view of Nookala and further in view of Ditze  
Does Not Render Claims 3, 14 and 16 Obvious.**

Claims 3, 14 and 16 were rejected under 35 U.S.C. §103 as being unpatentable over Nixon in view of Nookala and further in view of Ditze. Appellant respectfully submits the Examiner has erred in maintaining this Section 103 rejection and respectfully requests reversal of this rejection.

**1. Claims 3, 14 and 16**

Claims 3, 14 and 16 will be argued as a single group. Claims 3 and 14 generally relate to the selection of an executive code or program in response to a user code or program. Claim 16 further specifies aspects of the executive program. The Examiner, in the Office Action of October 20 2005, stated that “Ditze teaches the executive code can be selected based on the user code.” (See Office Action of October 20, 2005, p. 12).

**2. No Suggestion or Motivation to Combine**

For the reasons given above, Appellant maintains that the combination of Nixon and Nookala is improper. In this regard, Ditze fails to cure the many deficiencies of Nixon and Nookala.

Moreover, the Examiner also failed to properly provide a motivation or incentive for combining Ditze with Nixon and Nookala. In asserting the combination of Ditze with Nixon and Nookala the Examiner alleges:

It would have been obvious to one of ordinary skill in the art at that time the invention was made to take the system disclosed by Nixon in view of Nookala and modify it as indicated by Ditze such that the system further comprises the executive code is selected in response to the user code selected. One would be motivated to have to [sic] this as it would optimize the application program by helping to eliminate run-time and memory overhead (Page 90, section 3.2 first paragraph of Dizte [sic]). (Office Action of October 20, 2005, p. 12).

The Examiner again fails to explain how the prior art provides an incentive or motivation for one skilled in the art to combine features of Ditze with the systems of Nixon and Nookala. Instead, the Examiner simply identifies an alleged "benefit" of the proposed modification to Nixon and Nookala. However, the mere existence of a perceived benefit does not establish the prior art motivated the modification.

Claim 3 depends indirectly on claim 1 and includes each of its limitations and claims 14 and 16 depend on claim 12, either directly or indirectly, and include each of its limitations. As set forth above, Appellant respectfully submits claims 1 and 12 are patentable over Nixon in view of Nookala. Accordingly, for the reasons given above with respect to the combination of Nixon and Nookala, and the additional arguments submitted here with respect to Ditze, Appellant submits that claims 3, 14 and 16 are patentable over Nixon in view of Nookala and in further view of Ditze.

**C. Nixon in view of Nookala and further in view of Johnson  
Does Not Render Claim 10 Obvious**

Claim 10 was rejected under 35 U.S.C. §103 as being unpatentable over Nixon in view of Nookala and further in view of Johnson. Appellant respectfully submits the Examiner has erred in maintaining this Section 103 rejection and respectfully requests reversal of this rejection.

Claim 10 depends directly on claim 1 and includes each of limitations. As set forth above, the combination of Nixon in view of Nookala is improper. Johnson does not cure the deficiencies of Nixon and Nookala. According to the Office Action of May 3, 2005, Johnson only discloses that ControlNet is a well known protocol in relation to field devices. Accordingly,

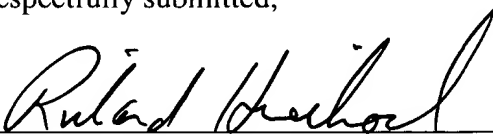
for the reasons given above with respect to claim 1, Appellant respectfully submits that claim 10 is patentable over Nixon in view of Nookala and in further view of Johnson.

### **VIII. CONCLUSION**

For the foregoing reasons, Appellant respectfully requests that the Board reverse the Examiner's rejections, and order that claims 1-17, 19-21 and 23 be passed to issue.

Respectfully submitted,

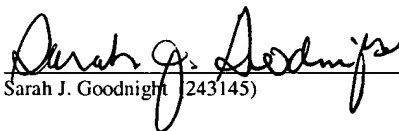
Date: April 28, 2006

By:   
Richard C. Himelhoch, Registration No. 35,544  
Customer No. 46,901  
Wallenstein Wagner & Rockey, Ltd.  
311 South Wacker Drive, 53<sup>rd</sup> Floor  
Chicago, Illinois 60606-6630  
312-554-3300  
Attorneys for Appellant

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#### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence and fee are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on April 28, 2006.

  
Sarah J. Goodnight (243145)



## **CLAIMS APPENDIX**

1. (Previously Presented) A control system, comprising:
  - an automation device operably connected to a network;
  - a network device operably connected to the network; and,
  - a plurality of customized application programs for the automation device stored in the network device, wherein one customized application program of the plurality of customized application programs controls the automation device, and is selected by the network device in response to a specific application program request message for the one customized application program received at the network device and sent from the automation device as part of a bootstrap protocol, and wherein the customized application program is downloaded to the automation device at a boot time of the automation device.
2. (Previously Presented) The control system of claim 1 wherein the one customized application program comprises an executive code and a user code.
3. (Previously Presented) The control system of claim 2 wherein the executive code is selected in response to the user code selected.
4. (Original) The control system of claim 1 wherein the automation device is a programmable logic controller.
5. (Original) The control system of claim 1 wherein the network device is a server.
6. (Previously Presented) The control system of claim 5 wherein the server has a TCP/IP protocol stack.
7. (Original) The control system of claim 1 wherein the network is Internet.
8. (Original) The control system of claim 1 wherein the network is Ethernet.
9. (Original) The control system of claim 1 wherein the network is Profibus.
10. (Original) The control system of claim 1 wherein the network is ControlNet.
11. (Original) The control system of claim 1 wherein the network is Modbus+.
12. (Previously Presented) A method of operating a control system on a network comprising the steps of:
  - providing a network device for storing a plurality of customized application programs to be executed on an automation device;

transmitting a message for requesting a network address for the automation device by the automation device;

transmitting a message by the automation device for requesting one customized application program of the plurality of customized application programs for the automation device as part of a bootstrap protocol;

selecting the one customized application program in response to the message for requesting one customized application program of the plurality of customized application programs;

transmitting the one customized application program to the automation device; and,

installing the one customized application program on the automation device at a boot time of the automation device.

13. (Previously Presented) The method of claim 12 further comprising the step of executing the customized one application program on the automation device.

14. (Previously Presented) The method of claim 12 wherein the step of selecting the one customized application program in response to the request for one customized application program of the plurality of customized application programs comprises the steps of:

identifying the message for requesting one customized application program of the plurality of customized application programs;

selecting a user application program in response to the message requesting one customized application program of the plurality of customized application programs; and,

selecting an executive program in response to the user application program selected.

15. (Previously Presented) The method of claim 12, wherein the specific customized application program further comprises:

an executive program code for the automation device; and,

a user program code for the automation device, the user program is selected in response to the message requesting one customized application program of the plurality of customized application programs.

16. (Previously Presented) The method of claim 15 wherein the executive program code is customized in response to the message to meet the minimum requirements for executing the one customized application program.

17. (Previously Presented) A network control system, comprising:

means for operably connecting a network device to the network control system, the network device stores a plurality of customized application programs for controlling an automation device;

means for transmitting a message requesting a network address by the automation device;

means for transmitting a message by the automation device requesting one customized application program of the plurality of customized application programs as part of a bootstrap protocol;

means for selecting the one customized application program in response to the message requesting the one customized application program;

means for transmitting the one customized application program to the automation device; and,

means for installing the one customized application program at a boot time of the automation device.

18. (Canceled)

19. (Original) The network control system of claim 17 wherein the automation device is a controller.

20. (Original) The network control system of claim 17 wherein the network device is a server.

21. (Previously Presented) A method of operating a control system on a network comprising the steps of:

providing a network device for storing a plurality of customized application programs to be executed on an automation device;

requesting a network address for the automation device by the automation device;

requesting one customized application program of the plurality of customized application programs by the automation device as part of a bootstrap protocol;

selecting the one customized application program;

transmitting the one customized application program to the automation device;  
and,

installing the one customized application program on the automation device at a  
boot time of the automation device.

22. (Canceled)

23. (Previously Presented) The method of claim 21 wherein further comprises:  
selecting a user code for the one customized application program; and,  
selecting an executive code for the one customized application program.

## **EVIDENCE APPENDIX**

There is no evidence to present in the Appendix.





## RELATED PROCEEDINGS APPENDIX

There are no related appeals or interferences.